Anton S. Hesse

Curriculum Vitae
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EDUCATION

2023 — Ph.D., Kinesiology: Exercise Physiology
University of Minnesota-Twin Cities, Minneapolis, MN
College of Education and Human Development
School of Kinesiology
Dissertation advisor: Dr. Christopher Lundstrom & Dr. Beth Lewis
Dissertation: *Data Processing Methods and their Effects on the Limits of Agreement and Reliability of Automated Submaximal Threshold Calculations*

2019 — M.S., Kinesiology: Exercise Physiology
University of Minnesota-Twin Cities, Minneapolis, MN
College of Education and Human Development
School of Kinesiology
Thesis: *Examining the Respiratory Compensation Point with Automated Methods in Recreational Runners Training for a Marathon*

2015 — B.A., Exercise Science
B.A., Chemistry
St. Olaf College, Northfield, MN

TEACHING EXPERIENCE

University of Minnesota – Twin Cities, School of Kinesiology

2024 – Present — Lecturer
KIN 3027 – Human Anatomy for Kinesiology
KIN 3385 – Human Physiology

2023 — Teaching Specialist
KIN 3027 – Human Anatomy for Kinesiology
KIN 3385 – Human Physiology

2022 – 2023, — Teaching Assistant: Laboratory Instructor

2018 – 2020	KIN 3027 – Human Anatomy for Kinesiology
2020 – 2021	Teaching Assistant: Laboratory Instructor KIN 3385 – Human Physiology
2019 – 2020	Instructor of Record KIN 3027 – Human Anatomy for Kinesiology
2017 – 2018	Instructor of Record PE 1012 – Beginning Running
2017 – 2018	Instructor of Record PE 1014 – Conditioning

Concordia University – St. Paul, College of Health and Science

2022	Instructor of Record BIO 316 – Human Anatomy & Physiology II

Southwest Minnesota State University at North Hennepin Community College

2020	Instructor of Record EXSC 360 – Athletic Enhancement, Human Performance, & Exercise Leadership: Principles of strength and power, their assessment, and training applications

St. Olaf College, Exercise Science Department

2015	Teaching Assistant ESTH 375 – Physiology of Exercise Laboratory

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PROFESSIONAL EXPERIENCE

2019 – Present	Exercise Physiologist, University of Minnesota Physicians, Minneapolis, MN
2022	Exercise technician, University of Minnesota School of Public Health, Minneapolis, MN
2015 – 2020	Personal Trainer, YMCA of the Greater Twin Cities, Minneapolis, MN
2018 – 2019	Laboratory Technician, DexaFit Minneapolis, Edina, MN
2015 – 2016	Quality Control Technician, Bell International Laboratories, Minneapolis, MN

PUBLICATIONS

Peer-Reviewed Journal Articles

2022 Sanchez, O. A., **Hesse, A. S**., Betker, M. R., Lundstrom, C. J., Conroy, W. E., & Gao, Z. (2022). Cardiovascular Fitness and Associated Comorbidities in An Executive Health Program. *Exercise Medicine*, *6*(5), 1–8.

2021 Foreman NA*, **Hesse AS***, Ji LL. Redox Signaling and Sarcopenia: Searching for the Primary Suspect. *International Journal of Molecular Sciences*. 2021; 22(16):9045. https://doi.org/10.3390/ijms22169045

Conference Posters

2024 **Hesse, A.**, & Lundstrom, C. (2024). Different Data Pre-processing Minimally Affects Algorithm-derived Threshold Values On Average But Reveals Inherent Algorithm Variability: 3866. *Medicine & Science in Sports & Exercise (awaiting online publication and supplement volume, number, and page number).*

2023 **Hesse, A.**, & Lundstrom, C. (2023). Popularity And Prevalence Of Gas Exchange Data Processing Methods In Peer-reviewed Literature: A Scoping Review: 418. *Medicine & Science in Sports & Exercise*, *55*(9S), 148-149.

2023 Lundstrom, C. J., Foreman, N. A., Hesse, A. S., & Lee, E. J. (2023). Physiological Responses To Marathon Training Are Similar Between Sexes, Despite Differences At Baseline: 966. *Medicine & Science in Sports & Exercise, 55*(9S), 324.

2022 Lundstrom, C. J., Foreman, N. A., Lee, E. J., **Hesse, A. S.**, & Biltz, G. R. (2022). Training-related Changes In Cardiac Autonomic Function Assessed Before And After Graded Exercise Testing: 2141. *Medicine & Science in Sports & Exercise*, *54*(9S), 621–622.

2021 Foreman, N., **Hesse, A.**, & Lundstrom, C. (2021). Machine Learning Fails To Improve Marathon Time Prediction Compared To Multiple Linear Regression: 161. *Medicine & Science in Sports & Exercise*, *53*(8S), 49.

2021 Lundstrom, C. J., Lee, E. J., Foreman, N. A., **Hesse, A. S.**, & Biltz, G. R. (2021). Heart Rate Variability At Rest And During Steady State Exercise In Marathon Training Students: 48. *Medicine & Science in Sports & Exercise*, *53*(8S), 15-16.

RESEARCH EXPERIENCE

2016 – 2017	Graduate Research Assistant Marathon Study Assistant University of Minnesota, School of Kinesiology, Minneapolis, MN
2014 – 2015	Undergraduate Departmental Research Distinction in Exercise Science St. Olaf College, Northfield, MN
2013 – 2014	Undergraduate Research Assistant University of Minnesota, Food Science and Nutrition, Falcon Heights, MN

PRESENTATIONS

2019	**Hesse, A. S.** "Examining the Respiratory Compensation Point with Automated Methods in Recreational Runners Training for a Marathon," KIN Research Day – Minneapolis, MN. (May 1, 2019). *Invited*.
2015	**Hesse, A. S., (Author & Presenter)**, Crouser, S., Peterson, N., Voldal, E. **"**A Comparison of Unilateral and Bilateral Plyometric and Strength Training on Sprint and Jump Performance in Collegiate Volleyball Athletes," Northland Chapter of American College of Sports Medicine Spring Tutorial Meeting - St. Cloud, MN. (April 10, 2015)

GRANTS & AWARDS

2021	Council of Graduate Students Conference Grant – University of Minnesota
2021	Excellence in Teaching Award – Kinesiology Department, University of Minnesota
2020	Recipient of the College of Education and Human Development Robert and Corrie Beck Graduate Fellowship
2019	Best 5-minute Presentation – Kinesiology Research Day
2014 – 2015	Undergraduate Departmental Research Distinction in Exercise Science, St. Olaf College, Northfield, MN

TECHNICAL SKILLS

R statistical programming, data cleaning and visualization, package development
Python programming for data science and text analysis
Maximal and submaximal running, walking, and cycling VO_{2max}
Wingate, anaerobic treadmill, vertical jump, 30-meter fly
Body composition via DXA, skinfolds, girths, bioelectric impedance analysis
Flexibility, sphygmomanometry, and respiratory function

LANGUAGES

Fluent in Spanish

PROFESSIONAL MEMBERSHIPS AND CERTIFICATIONS

2020 – Present	American College of Sports Medicine
2023 – Present	American Physiological Society
2023 – Present	Human Anatomy & Physiological Society

SERVICE TO PROFESSION

2023	Crowd reviewer for the *International Journal of Sports Medicine*
2021	Guest reviewer for the *International Journal of Exercise Science*. January.